

On sick leave

Katherine Marshall

Long-term absences from work because of illness or disability can be costly for an employer. Direct costs include reduced productivity and output as well as replacement of labour, while indirect costs show up in reduced staff morale and lower quality of output. Increasing work stress (Williams 2003; Watson Wyatt 2003) and an aging workforce are just two reasons why absences remain a relevant workplace issue. Strategies for reducing them include improved workplace safety, health promotion activities, and employee assistance programs.

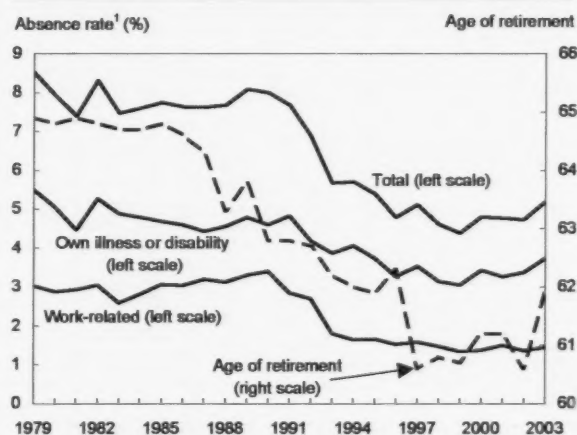
The costs of work absence and the methods for managing it are tangible, but the reasons for its occurrence in the first place are less straightforward. Several disciplines have contributed to the understanding of absenteeism, reflecting the myriad interrelated personal, social (psychological), economic, and environmental factors at play (Kaiser 1998). More specifically, variables studied include personal demographics, health status, attitude toward work, job satisfaction, job content, working conditions, workplace culture, potential lost earnings, and possible reprimand. Understanding absenteeism is further complicated because motivation can vary depending on the type and duration of the absence.

Work-related absences show biggest decline

In 2003, some 720,000 work absences of two weeks or longer due to illness or disability, 200,000 of which were work-related, were reported in the Survey of Labour and Income Dynamics (SLID). These absences represented 5.2% of all employees, a decline from 5.7% in 1993 (Chart A). The Absence from Work Survey, which also used to collect long-term absence data, found a similar downward trend throughout the 1980s—from 8.5% in 1979 to 6.9% in 1992.¹ Much of the overall decrease occurred because of a reduction

Katherine Marshall is with the Labour and Household Surveys Analysis Division. She can be reached at (613) 951-6890 or perspectives@statcan.ca.

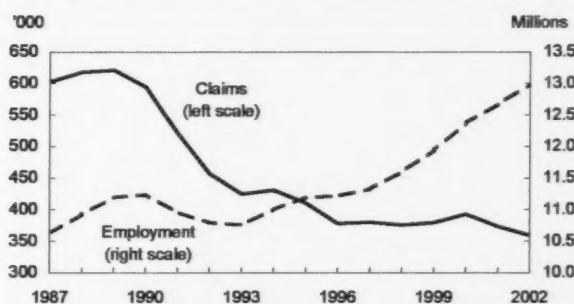
Chart A The long-term absence rate has dropped 2% in the past two decades.



¹ Absences divided by annual average employees.
Sources: Absence from Work Survey, 1979-1992; Survey of Labour and Income Dynamics, 1993-2003; Labour Force Survey, 1979-2003

in the work-related absence rate, which fell from 3.0% in 1979 to 2.7% in 1992, and from 1.8% to 1.4% since 1993. These findings are consistent with figures from workers' compensation boards, which also show a steep decline in work injury cases during roughly the same period. The number of accepted claims for time lost due to injury dropped from 602,500 in 1987 to 359,200 in 2002, even though the number of employees increased from 10.6 to 13.0 million (Chart B). Heightened awareness of occupational health and safety issues, including the federal government's creation of the Canadian Centre for Occupational Health and Safety in 1978, is credited for some of the reduction in the work injury rate. The Centre interprets much of the reduction to factors including "changing technologies, better educated workers, and industry

Chart B Time-loss injury claims have fallen despite employment gains.



Sources: Association of Workers' Compensation Boards of Canada, 1987-2002; Labour Force Survey, 1987-2002

initiatives together with occupational health and safety policies and programs" (CCOHS 2003). Furthermore, employment during this period shifted from the goods-producing sector—which generally has higher overall injury rates—toward the service sector (AWCBC 2005).

Long-term absences for personal illness or disability also dropped substantially between 1979 and 1992, from 5.5% to 4.2%, but remained relatively stable during the past decade (3.9% in 1993 and 3.7% in 2003) (Chart A). The large drop in personal illness absence rates in the 1980s may be tied in part to a parallel fall in the median age of retirement (from 64.9 in 1979 to a low of 60.6 in 1997, and under 62 since). Older workers leaving the workforce earlier may have a dampening effect on absence rates since sickness absenteeism rises significantly with age.

Average time off relatively stable at 11 weeks

Since 1993, the average duration of long-term absences has remained steady at around 10 weeks for personal illness or disability, and 13 weeks for those linked to the workplace (11 weeks for the combined absences). The distribution of weeks off differs by type of absence—with 30% of all work-related absences in 2003 lasting 17 or more weeks, compared with 20% of own-illness and disability absences (Chart C).

While the cross-sectional numbers and their trends over time are useful, additional insights can be gleaned by following individuals over time. This paper focuses

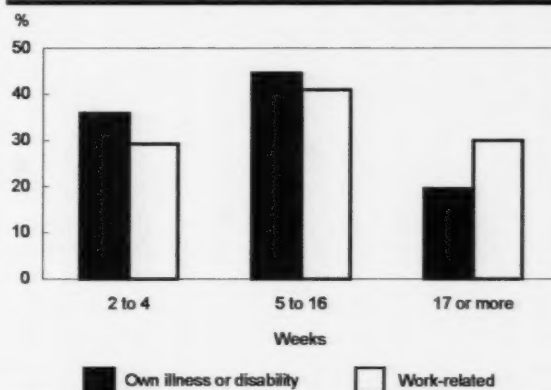
on employees who took a long-term absence in 2002, examining factors preceding the absence (in 2001), as well as any consequences of the absence in 2003 (see *Data sources and definitions*).

Age, health, unionization, pay and job security key in own illness absence

Of all those with a long-term absence in 2002, 3.3% cited personal illness and 1.3% a work-related illness or injury (Table 1).² Although the proportion was higher for women than for men (3.6% versus 3.0%) and for those married rather than unmarried (3.6% versus 2.9%), when considered together with age in a regression model, the only statistically significant demographic variable proved to be age. Among employees aged 45 and over, 4.6% had a long-term illness leave, which made them significantly more likely (1.5 times) to be on leave than those under age 35—even after controlling for personal health or disability.

Not surprisingly, those in poor or fair health, or those with a physical or mental disability prior to their absence, are significantly more likely than other employees to take long-term leave for illness reasons—regardless of age. Although only 740,000 workers reported being in poor or fair health prior to their absence, almost 9% ended up on long-term sick leave (meaning they were 1.7 times more likely to be on leave than those in good health). Also, of the two

Chart C In 2003, one-third of illness or disability absences¹ lasted one month or less.



¹ Of those two weeks or longer.

Source: Survey of Labour and Income Dynamics, 2003

Data sources and definitions

The **Survey of Labour and Income Dynamics (SLID)** began in January 1993. Respondents remain in the sample for six years, and each year approximately 30,000 people aged 16 to 69 complete two detailed questionnaires on labour market activity and income. The survey asks about work absences, other than paid vacations, that lasted one week or longer. If illness or disability is the reason, a subsequent question asks whether the absence was due to a work-related illness or injury. Details are collected for up to two absences (the first and last if more than two occurred) for each job in the year, to a maximum of six jobs. The target population for this paper is all persons who did some paid work in 2002 and had a personal or work-related illness or disability absence from their main paid job that lasted two weeks or longer. The absence must have ended in 2002 or 2003, and respondents must have reported in all three years (2001 to 2003). If a respondent had more than one long-term absence (which was the case for 5% of absence takers), the longest one was examined.

The **Absence from Work Survey (AWS)** was an annual supplement to the Labour Force Survey (LFS) from 1977 to 1998. It asked employees about work absences of at least two weeks duration due to "illness, accident or pregnancy." Detailed information on duration and type of compensation received was collected for the most recent absence.

A **long-term absence** lasts two weeks or longer. The AWS initially focused on absences of at least two weeks as this is the standard waiting period before EI benefits are payable.

An **absence rate** is calculated by dividing the total long-term absences in any given year by the average number of employees in that year. The denominator for the AWS was the LFS, which includes all workers whose main job is paid, while for SLID it consists of all those who had at least one paid job in the year. By definition, the SLID denominator will be somewhat higher than the LFS.

Extended medical insurance is an employer-sponsored medical insurance or health plan that supplements public coverage. **Disability insurance** is an employer-sponsored plan providing financial protection in the event of income lost through disability.

Health status is self-reported and asked on the SLID labour questionnaire in January of each reference year. Respondents answer the question: "In general, how would you describe the state of your health?" Answers range from poor (5) to excellent (1).

Disability status is derived from several questions. Respondents are deemed to have some disability if they report having difficulty with activities of daily living, or if they have a physical or mental condition or health problem that reduces the amount or kind of activity they can do.

Stress is also self-reported on the January questionnaire. Respondents are asked the question: "Would you describe your life as...?" Answers range from 'not at all stressed' (4) to 'very stressful' (1).

million employees with a disability, nearly 8% had an absence in 2002. Controlling for other factors, those with a disability were 2.4 times more likely to have a long-term absence. Prior poor mental or physical health also significantly increased the amount of time off the job. While the average length of own-illness absence was relatively close to 10 weeks for all variables examined, absences for those in fair or poor health, with a disability, or highly stressed averaged 18, 13 and 14 weeks respectively (data not shown).

The combination of two job-related factors—belonging to a union and having medical or disability insurance coverage—also significantly increased the likelihood (1.7 times) of a leave from work for personal illness when compared with workers who had neither benefit. Some 5.0% of unionized and insured employees had an absence. Although working in the public sector appears important (absence rate of 4.8%), the key factors are unionization and supplementary medical insurance. This suggests that two elements—

job protection and lost earnings—are strongly associated with the incidence of long-term leave due to illness.

Past research has shown that "although unions can shield workers from sanctions from absenteeism, this fact would not induce the workers to take more five-day absences" (Chaudhury and Ng 1992). While unions may not directly encourage the use of long-term personal illness leave, they may have the power to protect against possible reprimand and hence may indirectly bolster its use. Furthermore, unionized settings tend to offer more generous sick leave policies. Indeed, almost half (47%) of unionized leave takers reported receiving full pay compensation compared with only one-quarter of the total not unionized (see *Absence compensation*). Therefore, non-unionized workers (with or without insurance coverage) may be more likely to continue working, despite not feeling well, if reprisal is feared or reduced pay is at stake. In reality, choosing to take an absence falls on a continuum, based

Table 1 Long-term illness or disability rate (two or more weeks) in 2002 by reason and selected indicators

	Total ¹	Own-illness absence	Odds ratios ²	Work-related absence	Odds ratios ²
	'000	%		%	
Total employees	12,636	3.3		1.3	
Men	6,440	3.0	n.s.	1.4	n.s.
Women	6,196	3.6	1.0	1.3	1.0
Age					
Less than 35	5,082	2.2	1.0	0.5 ^E	1.0
35 to 44	3,425	3.4	n.s.	1.9	3.2 ^{**}
45 and over	4,130	4.6	1.5 [*]	1.9	2.5 ^{**}
Married	7,405	3.6	n.s.	1.5	n.s.
Not married	5,231	2.9	1.0	1.1 ^E	1.0
High school or less	5,203	3.6	..	1.3 ^E	..
Postsecondary certificate/diploma/degree	5,933	2.8	..	1.5	..
Health indicators prior to absence					
Good to excellent health	11,832	3.0	1.0	1.1	1.0
Poor or fair health	737	8.8	1.7 ^{**}	5.4 ^E	n.s.
No disability	10,666	2.6	1.0	0.7	1.0
Physical or mental disability	1,905	7.6	2.4 ^{***}	4.8	4.6 ^{***}
Somewhat to not at all stressed	10,557	3.2	1.0	1.0	1.0
Very stressed	1,865	4.5	n.s.	3.4 ^E	2.4 ^{***}
Job indicators prior to absence					
Not unionized, without insurance ³	3,851	2.3	1.0	0.7	1.0
Not unionized, with insurance	4,334	3.1	n.s.	0.9	n.s.
Unionized, with insurance ⁴	3,795	5.0	1.7 [*]	2.6	3.1 ^{**}
Public sector	2,621	4.8	1.0	2.2	1.0
Private sector	10,015	2.9	n.s.	1.1	n.s.
Permanent job	10,010	3.7	1.6 [*]	1.5	..
Temporary job	2,250	2.1 ^E	1.0	F	..
Goods-producing sector	2,982	3.4	1.0	1.2	1.0
Service-producing sector	9,515	3.3	n.s.	1.4	n.s.

1 Individual variable categories may not add to the total due to non-responses.

2 This regression calculation indicates whether certain variables significantly increase or decrease the chances (odds) of having an absence; n.s. = not significant with reference group (1.0).

3 Refers to having supplementary medical and/or disability insurance coverage from the employer.

4 Includes a minority of employees (4.5%) who are unionized but have no insurance coverage.

* Regression results statistically significant at the .05 level; ** at the .01 level, *** at the .001 level.

Source: Survey of Labour and Income Dynamics, 2001-2003

on factors such as perceived consequences, degree of work attachment, and ability to attend (Harrison and Martocchio 1998).

Having extended medical or disability coverage is a strong indicator that paid sick leave is also a job benefit. In this case, some or all of an extended illness

absence would be paid for. Almost two-thirds of those with insurance coverage who were on long-term leave because of personal illness were partially or fully paid by their employer while off work, compared with only a small minority of those uninsured (see *Absence compensation*). Even though many employees without paid

sick leave can apply for Employment Insurance (EI) sickness benefits, those who are eligible must first undergo a two-week unpaid waiting period. They then receive only 55% of their earnings to a maximum of \$413 per week. On the other hand, those with insurance coverage are likely to receive paid sick leave for the waiting period. Again, depending on the degree of illness, some choice could be involved as to staying at work or not, with potential loss of earnings playing a large part in that decision.

Job security is another issue linked with personal illness absences. Permanent employees were 1.6 times more likely to have a long-term absence than those with a temporary, term, contract or casual job.³ This finding aligns with the hypothesis that a lack of job security is associated with reduced absence because of either the fear of layoff or the desire for contract renewal. "Employees on temporary contracts have stronger incentives for job attendance when this affects future employment chances" (Arai and Thoursie 2005).

Stress an important issue in work-related absences

As with personal illness absences, age is also a factor with work-related absences (Table 1). Older workers, whether in excellent or poor health, were more than twice as likely as younger workers to have a long-term absence, suggesting that they are more prone to work-related accidents, injuries or illness. However, regardless of age, having a physical or mental disability significantly increased the chances (4.6 times) of having a work-related absence due to illness or disability. Health status prior to absence, whether poor or excellent, was not a significant factor.

Interestingly, stress is a factor with work-related absences only. Employees feeling very stressed were 2.4 times more likely to take a leave than those not overly stressed. Recent research has found that half of all employees report single or multiple stresses in their work environment (Williams 2003). Also, on- and off-the-job stress is associated with depression among workers, and depression is associated with more disability days than any other chronic condition (Shields forthcoming).

Like employees with a long-term personal illness absence, those whose long-term absence was work-related were more likely to be unionized. Again, unionized workers may be better informed by union

representatives and supervisors of their rights, and may have less fear of reprimand for filing a claim. Protection from reprisal may be more significant than reduced wages in the case of work-related absences. Unlike personal illness absences, equal proportions of insured non-unionized workers (83%) and insured unionized workers (81%) reported receiving payment from their employer as well as workers' compensation during their absence (see *Absence compensation*). Furthermore, workers' compensation is available to virtually all workers and usually offers almost full earnings replacement.

Somewhat surprisingly, industry does not seem to be a significant factor in work-related absences despite the differences shown in workers' compensation injury claim rates. Unfortunately, a more detailed industry or occupational examination of absences was not possible because of the very small sample sizes that would have resulted. Moreover, workers' compensation claims are not strictly comparable to the SLID absences from work.

Post-absence consequences found for those off four months or longer

Many of the possible downsides to a long-term absence from work are not measurable. These include altered attitudes of co-workers and supervisors, a reduced network, and lowered energy level. Measurable or not, consequences are likely to be greater the longer one is off work.

In terms of measurable consequences, higher rates of stress and poor health were generally seen for those with an extended absence (17 weeks or more), regardless of the reason, in both the year before and the year after the absence (Table 2). One-third of these people felt very stressed in the year prior to the absence compared with only one-seventh of those with no absence. Health was significantly worse in both 2001 and 2003 for all those with a long-term absence of any duration in 2002, compared with those with no absence. Among the extended absence group, fully one-quarter reported fair to poor health before their absence, compared with 1 in 16 of those with no absence.

Furthermore, perhaps because of their accentuated health and stress issues, those with an extended absence were the only ones to reduce their labour market attachment the following year. Among this group, the rate of full-year work dropped significantly, from 84% in 2001 to 58% in 2003, while usual

Absence compensation

Doing without earnings while on leave for illness or disability for a considerable period of time would likely be difficult for most workers, but fortunately the majority of employees have several options for compensation.

Employer-based sickness benefits: The 1995 Survey of Work Arrangements found that 57% of employees had access to paid sick leave, and 59% had a supplemental health plan. Although SLID does not ask about paid sick leave per se, 62% of employees in 2002 had a job that offered extended medical insurance coverage. Many plans require workers to earn sick leave credits based on the amount of time worked. An earned sick leave credit is usually equivalent to full pay. In 2002, half of those with either a personal or work-related long-term absence due to illness or disability received full or partial pay from their employer for the time they were away.

Although it is not possible to tie the receipt of Employment Insurance (EI) or workers' compensation directly to a long-term absence, they are quite likely related when both occur in the same year. One-quarter of those whose absence in 2002 was for personal illness reported EI benefits that year, while 50% of those with a work-related absence received workers' compensation.¹ In total, the majority of absence takers (73% for personal illness and 81% work-related) received some form of compensation.

In all cases, unionization, medical or disability insurance coverage, and job permanency increased the chances of receiving compensation, particularly among those with a personal illness. For example, only a minority of non-unionized employees without insurance received employer compensation for their personal illness absence—although receipt of EI was relatively high for this group (37%). Overall, however, only 45% of this group collected some form of compensation. In comparison, 72% of non-unionized and 89% of unionized workers with insurance coverage received compensation.

Employment Insurance (EI) sickness benefits are available to eligible workers who have contributed. To qualify, a person must have had their weekly earnings decrease by more than 40%, accumulated 600 insured hours in the last 52 weeks, and submitted a medical certificate. Sickness benefits are capped at 15 weeks, although benefits can run to a maximum of 50 weeks for other reasons. The basic rate is 55% of average insured earnings to a maximum of \$413 per week. Benefits commence after an unpaid two-week waiting period.

Workers' compensation is a provincial statutory insurance plan for personal injury, illness or death caused by or associated with a job. Each province sets its own rules. Despite some provincial differences, the majority of workers in most industries are covered, and plan principles are the same: Employers are solely responsible for the cost (through annual premiums), employees cannot sue in lieu of compensation benefits, and workers are automatically eligible no matter who was responsible for the problem ('no-fault' insurance). Claims must be filed and approved by a workers' compensation board (a neutral agency), and benefits may include medical services, wage-loss benefits, and rehabilitation services. Earnings replacement is upward of 90% of net average wages.

Employees who received workers' compensation (WC) or Employment Insurance (EI) sometime in 2002, or partial or full pay from their employer during their long-term absence (two weeks or more)

	Own-illness absence				
	Employer compensation (EC)			EI	EC, EI, or both
	Full	Partial	None		
	%				
Total with an absence	33	18	49	27	73
Job characteristics					
Not unionized, without insurance ¹	F	F	91	37 ^E	45 ^E
Not unionized, with insurance	35	16 ^E	48	23 ^E	72
Unionized, with insurance	47	27	26	22 ^E	89
Permanent	36	19	44	25	76
Temporary	F	F	83	40 ^E	52 ^E
	%				
Total with an absence	31	18	51	50	81
Job characteristics					
Not unionized, without insurance ¹	F	F	93	64 ^E	64 ^E
Not unionized, with insurance	49 ^E	F	40 ^E	47 ^E	83
Unionized, with insurance	33 ^E	26 ^E	41 ^E	42 ^E	81
Permanent	33	19 ^E	48	47	79
Temporary	F	F	F	F	F

¹ Refers to medical or disability insurance coverage from an employer. The category of those who are unionized but have no insurance coverage is not shown as it represents less than 5% of employees.

Source: Survey of Labour and Income Dynamics, 2001-2003

Table 2 Health and employment indicators by duration of work absence in 2002

	No absence	2 to 4 weeks	5 to 16 weeks	17 or more weeks
Very high stress			%	
2001	15	15 ^E	23 [*]	33 ^{**E}
2003	15	20 ^E	20 ^E	36 ^{**E}
Poor or fair health				
2001	6	17 ^{**E}	11 ^E	24 ^{**E}
2003	5 ^(*)	13 ^E	10 ^E	26 ^{**E}
Employed full year¹				
2001	74	82	87 ^{***}	84 ^{***}
2003	78 ^{***}	78	79	58 ^(*)
Employed full time				
2001	83	81	91 ^{**}	88
2003	86 ^{***}	87	89	86
Mean weekly usual hours			hours	
2001	33	35	36 ^{**}	33
2003	34 ^{***}	34	34	30 ^{**}
Median hourly earnings			\$	
2001	17.00	18.07	17.25	17.12
2003	18.65 ^{***}	19.45	18.25	17.62

¹ Restricted to those whose absence started and ended in 2002 (see Note 4).

* Regression results statistically significant at the .05 level; ** at the .01 level, *** at the .001 level.

Numbers in () = significant difference between 2001 and 2003.

Source: Survey of Labour and Income Dynamics, 2001-2003

weekly hours dropped from 33 to 30.⁴ Among those without an absence, however, full-year work increased significantly—from 74% to 78%. Other employment indicators suggest that even though 2003 was an economically stronger year than 2001, only those without an absence benefited from this growth. For example, they were the only ones with significantly more full-time work (a rise from 83% to 86%) and longer usual weekly hours (from 33 to 34) in 2003. And, they were also the only employees to enjoy a significant increase in hourly earnings—from \$17.00 in 2001 to \$18.65 in 2003. (Absence takers also had increases, but they were not statistically significant.) Previous research has suggested that absenteeism can lead to decreased performance that can in turn lead to reduced pay and fewer promotions (Harrison and Martocchio 1998).

While this article examined only long-term absence takers who did return to work, the ultimate consequence is that some employees are forced to leave their jobs because of illness. Since 2000, roughly 3% of all annual job separations occurred because of personal or work-related illness or disability. This represents less than 1% of all employees (roughly 73,000).

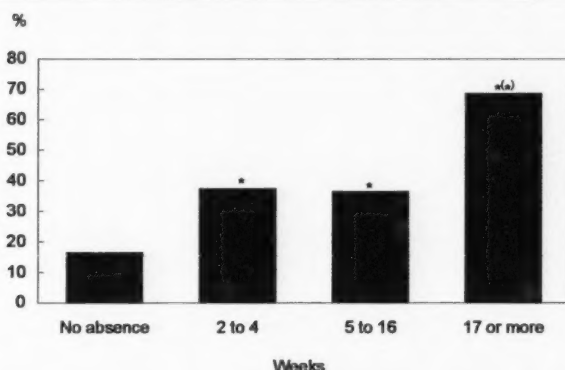
Another striking consequence of long-term absence is the chance of relapse—another (separate) absence. More than one-third of those whose absence in 2002 ranged from 2 to 16 weeks, and over two-thirds of those whose absence lasted 17 weeks or more, experienced another absence of one week or more before the end of 2003, compared with only one-sixth of those with no absence in 2002 (Chart D).⁵

Conclusion

Although long-term absences for personal illness or disability have seen relatively stable rates over the past decade (3.7% in 2003), they still amounted to more than half a million in 2003. An additional 200,000 work-related absences were observed, but their rate has fallen, hitting 1.4% in 2003. With an average duration of 11 weeks, long-term illness or disability claims undoubtedly have negative consequences for employers, co-workers, and the absentees themselves. At the very least, the work of an absent employee is left undone, shared among those remaining, or carried out by a replacement. The cost of each long-term absence is roughly \$8,800.⁶ Furthermore, absences lasting upwards of four months are generally associated with negative health, stress, and career stagnation, as well as heightened chances of being on leave again the following year.

Two job factors significantly influenced an illness or disability absence: having medical or disability insurance coverage through an employer (indicating paid sick leave) and being in a unionized job. The first variable suggests that unless they

Chart D The majority of those with a long-duration absence in 2002 had an absence of one week or longer in 2003.



* Significant difference with "no absence" group; (*) significant difference with short- and medium-duration groups.
Source: Survey of Labour and Income Dynamics, 2001-2003

are very sick, people without insurance may stay on the job, since the alternative may result in lost wages. The second—being in a union—alludes to job protection and higher levels of compensation while off work. Another factor in personal-illness absences is job permanency, indicating job security and reduced fear of reprisal.

Age, health status, disability, and stress are important predictors for one or both of long-term personal and work-related illness or disability absences. While the physical and mental health of employees has the potential to change, the aging of the workforce is certain as baby boomers move into their final working years before retirement. As the average age of the workforce increases, so may the rate of long-term work absences due to illness.

Improving employee health is often touted as a way to reduce long-term absenteeism due to illness. This relatively new movement includes promoting wellness or health management as a "more preventative and holistic method of tackling the problem [of absenteeism]" (Manocha 2004). Many employers now offer health promotion programs, such as employee assist-

ance, stress management, smoking cessation, fitness subsidies, and flu vaccinations, but few cost-benefit analyses have been done. Furthermore, since disability is tied to long-term absences, workplace and job accommodation may also help reduce the rate. In fact, the Conference Board of Canada found that employers engaging in health promotion as well as initiatives toward "psychosocial and physical work environments" are the most likely to see results in cost savings, improved productivity, and enhanced employee retention (Bachmann 2002).

Perspectives

Notes

1 Although the trend lines show a decline for the two data sources, the overall rates are generally lower with SLID. Part of the reason is that the denominator (annual average number of paid workers) is slightly different and higher for SLID (see "Absence rate" in *Data sources and definitions*). For more information on this subject, see Noreau (1996).

2 The focus of this section is on employees who had at least one long-term absence. This total is smaller than the total number of absences because approximately 5% of workers had more than one long-term absence in the same year.

3 This finding is based on a relatively small sample size and should therefore be interpreted with some caution. However, it is consistent with findings from other similar studies.

4 To account for absences that may have spilled into 2003, only those that ended in 2002 were considered in this calculation. The low rate of full-year work for those with long-term absences is most likely because the majority took another absence in 2003 (see Chart C).

5 A variable on the SLID job file indicates whether the respondent had an absence of one week or longer (excluding paid vacation) in the year. Details of the absences are found on a separate file. Reasons for the absence of one week or longer found in chart C were not determined.

6 This rough calculation of \$8,800 is based on 440 hours of lost time (11 weeks x 5 days x 8 hours per day) multiplied by average hourly earnings of \$20.

7 Among the non-absence population, 16% reported receiving some EI during the past year, and 3% workers' compensation.

■ References

- Arai, Mahmood and Peter Skogman Thoursic. 2005. "Incentives and selection in cyclical absenteeism." *Labour Economics* 12, no. 2 (April): 269-280.
- Association of Workers' Compensation Boards of Canada (AWCBC). 2005 *National Work Injury and Disease Statistics, 2002-2004*. Mississauga, Ontario: AWCBC.
- Bachmann, Kimberley. 2002. "Health Promotion Programs at Work: A Frivolous Cost or a Sound Investment." Ottawa: The Conference Board of Canada.
- Canadian Centre for Occupational Health and Safety (CCOHS). 2003. Performance report for the period ending March 31, 2003. Ottawa: CCOHS. Internet: www.ccohs.ca/ccohs/reports/performance_03.html.
- Chaudhury, Mohammed and Ignace Ng. 1992. "Absenteeism predictors: least squares, rank regression, and model selection results." *Canadian Journal of Economics* 25, no. 3 (August): 615-635.
- Harrison, David and Joseph Martocchio. 1998. "Time for absenteeism: A 20-year review of origins, offshoots, and outcomes." *Journal of Management* 24, no. 3: 305-350.
- Kaiser, Carl. 1998. "What do we know about employee absence behavior? An interdisciplinary interpretation." *Journal of Socio-Economics* 27, no. 1: 79-96.
- Manocha, Rima. 2004. "Well adjusted." *People Management* 10, no. 7: 26-30.
- Noreau, Nathalie. 1996. *Comparison of Data on Absences between SLID and Absence From Work Survey (AWS)*. SLID Research Paper Series. Catalogue no. 96-10. Ottawa: Statistics Canada.
- Shields, Margot. forthcoming. "Stress and depression in the employed population." *Health Reports* (Statistics Canada, catalogue no. 82-003-XIE).
- Watson Wyatt Canada. 2003. "Addressing mental health in the workplace." *Watson Wyatt Memorandum* 17, no. 2 (June): 4-6.
- Williams, Cara. 2003. "Sources of workplace stress." *Perspectives on Labour and Income* (Statistics Canada, catalogue no. 75-001-XIE). June 2003 online edition.